May 15, 2014

Ms. Melanie Magee
U.S. EPA Region 6, 6PD
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

RE: Revision to Application PSD-TX-1354-GHG;
Response to Questions
M&G Resins USA, LLC
Corpus Christi, Nueces County, Texas

Ms. Magee:

Zephyr Environmental Corporation (Zephyr), on behalf of M&G Resins USA, LLC (M&G), hereby submits this application revision and response to your questions in your February 5, 2014 letter regarding the above referenced application for a Prevention of Significant Deterioration (PSD) air quality permit for greenhouse gas emissions.

This application revision corresponds to the application revision submitted to the Texas Commission on Environmental Quality (TCEQ) for the state/PSD application for non-GHG emissions on May 9, 2014. This revision contains the following changes:

- M&G proposes two separate options for the Utility Plant: (Option 1) a General Electric LM6000 natural gas-fired combustion turbine exhausting to a natural as-fired heat recovery steam generator (EPN: CTG) and two natural gas-fired auxiliary boilers (EPNs: AUXBLRA1 and AUXBLRB); or (Option 2) three natural gas-fired auxiliary boilers with no combustion turbine (EPNs: AUXBLRA1, AUXBLRA2, and AUXBLRB).
- The proposed firing rates for the combustion turbine and Heat Recovery Steam Generators duct burners have changed slightly.
- The maximum firing rate for Auxiliary Boiler A1 has been reduced to 445 MMBtu/hr.
- A second boiler (A2), identical to Auxiliary Boiler A1, is included in Option 2.
- The maximum firing rate for Auxiliary Boiler B has been increased to 250 MMBtu/hr and the annual operating schedule is increased to 8,760 hours per year.

Included in Attachment A are updated GHG emission calculation tables 3-1 (Plantwide GHG Emission Summary); 3-2 (Combustion Turbine and Duct Burner GHG Annual Emission Calculations); 3-3A (Auxiliary Boiler A1 GHG Annual Emission Calculations); 3-3B (Auxiliary Boiler A2 GHG Annual Emission Calculations); 3-4 (Auxiliary Boiler B GHG Annual Emission Calculations); 3-5 (Natural Gas Piping GHG Annual Emission Calculations); and 3-6 (Gaseous Fuel Venting during Turbine MSS GHG Annual Emission Calculations). The revised GHG emission calculations also include the updated Global Warming Potential factors.
Revised PSD Netting Tables 1F and 2F are provided in Attachment B.

Your questions from your February 5, 2014 letter are duplicated below followed by a response. Note that this application was initially submitted by NRG Development Company, Inc. and was transferred to M&G Resins USA, LLC on March 27, 2014.

1. Please provide the load efficiency curves for the proposed combustion turbines.

A generic load efficiency curve for the GE LM 6000 PF Sprint Turbine and Heat Recovery Steam Generator (HRSG) is included in Attachment C. The reported load efficiency curve is for a new turbine on a Lower Heating Value (LHV) of fuel basis.

2. On page 15 of the application, NRG states that they will install SF6 circuit breakers (CBs). Please provide the proposed number of SF6 circuit breakers to be installed for this project in addition to the estimated capacity of 495 pounds of SF6 to be used and the locations where they will be installed if known.

In the latest design, there will no SF_6 circuit breakers located at the Utility Plant site.

3. On page 21 of the permit application, NRG proposes to implement regular maintenance programs to maintain optimum efficiency and ensure reliable operation. Please provide supplemental data that discusses the details of what this program will involve.

The maintenance program for the LM6000 PF gas turbine engine consists primarily of preventative maintenance. GE recommends borescope inspections at least every 4000 hours, 450 cycles or annually. Additionally, approximately every 4 years hot section and combustor planned maintenance will occur. Periodic compressor wash downs will also be carried out to avoid fouling.

The heat recovery steam generator will also require periodic inspection and preventative maintenance. Each gas path section will be inspected visually for wear and potential failure of tubes, headers, welds, etc. HRSG external casing will be visually monitored on an ongoing basis. HRSG steam drum will be visually inspected internally periodically. Components, including SCR and CO catalysts, will be surface cleaned when deposits, scaling or fouling is detected. It is expected that catalyst coupons will be replaced after 30,000 – 50,000 hours of operation.

4. NRG does not include maintenance, startups, and shut down emissions in the emissions calculation for combustion turbines. EPA needs to permit these emissions or they are unauthorized. Typically we permit these emissions by either establishing a separate alternative BACT that applies during MSS, or we roll the emissions into each emission point as part of our BACT determination for that unit with the expectation that the unit will meet BACT at all times. Please provide additional data on the proposed number of startups and shutdowns for the proposed NRG facility.

The GHG emissions from the combustion turbine unit are directly proportional to the amount of fuel combusted. During a planned startup or shutdown of the combustion turbine, the amount of fuel combusted is less than the amount of fuel combusted during normal operation. Therefore, GHG emissions from the combustion turbine during startup and shutdown will be less than GHG emissions during normal operations. The annual GHG emissions from the combustion turbine

shown on Table 3-2 of the application includes GHG emissions during startup and shutdown. GHG during maintenance activities are shown on Table 3-6 of the application.

5. On pages containing Tables 3-1, 3-2, 3-3 and 3-4, NRG has proposed tons/yr annual GHG BACT emission limits for the auxiliary boilers. Please provide an output-based BACT emission limit, or a combination of an output- and input-based limit, or an efficiency-based limit. If a numerical emission limit is not feasible, please provide a rationale to support this determination. Also, please provide your preferred compliance monitoring strategy to support an output-based, combination of an output- and input-based or efficiency-based BACT limit.

The output from the CHP unit will consist of electricity generated with the combustion turbine and steam generated in the duct fired heat recovery steam generator. There will not be a steam turbine generator turbine which generates additional electricity from the steam. All the steam generated from the CHP unit will be sold to the neighboring polyethylene terephthalate (PET) Plant. An overall thermal efficiency for the CHP of 60% (12 month rolling average) and based on the gross calorific value of the fuel was originally proposed in this GHG application. The CHP Unit thermal efficiency will be calculated as follows:

CHP Unit Efficiency = [(Heat Content of Steam Produced (MMBtu) + (Turbine Gross Electrical Output (kWh) x 0.00341442595 MMBtu/kWh] / (Turbine and Duct Burner fuel firing rate x Gross Calorific Value of fuel (MMBtu))

The heating value of the steam produced will be calculated based on the enthalpy of the steam generated minus the enthalpy of the incoming boiler feedwater. The steam flow generated by the HRSG will be measured by a flow meter and recorded in the data acquisition system. The gross electrical output of the combustion turbine will be measured and recorded in the data acquisition system. The natural gas fuel flow to the combustion turbine and the duct burners will be measured by flow monitors and will be recorded in the data acquisition system. The gross calorific value of the natural gas will be determined by monthly sampling and analysis of the natural gas supply.

M&G proposes an overall minimum thermal efficiency for Auxiliary Boilers A1, A2 and B of 77% on a 12 month rolling average and based on the gross calorific value of fuel. This BACT limit is consistent with BACT limits established for natural gas fired boilers in GHG PSD permits for BASF FINA Petrochemicals LP (PSD-TX-903-GHG); Chevron Phillips Chemical Company LP (PSD-TX-748-GHG); and ExxonMobil Chemical Company (PSD-TX-103048-GHG). The boiler thermal efficiencies will be calculated as follows:

Boiler Efficiency = [(Heat Content of Steam Produced (MMBtu) / (Boiler fuel firing rate x Gross Calorific Value of fuel (MMBtu))

The heating value of the steam produced will be calculated based on the enthalpy of the steam generated minus the enthalpy of the incoming boiler feedwater. The steam flow generated by each boiler will be measured by a flow meter and recorded in the data acquisition system. The natural gas fuel flow to each boiler will be measured by flow monitors and will be recorded in the

data acquisition system. The gross calorific value of the natural gas will be determined by monthly sampling and analysis of the natural gas supply.

6. It doesn't appear as though NRG proposed any specific degradation margins for the turbines and a percent degradation margin for the auxiliary equipment. Were any performance and/or degradation margins applied in the calculations? Please provide a basis and any supplemental manufacturer's documentation that would substantiate the applicable percentages.

The performance of the gas turbine is expected to degrade over the life of the project due to various natural causes such as fouling, erosion, pitting, and increased tip clearances. The end result of the degradation will include a decrease in efficiency and performance of approximately 4%. This will be mitigated to the extent possible by periodically washing the compressor blades with a detergent per GE specifications. However, any loss in efficiency will be offset to some extent by the accompanied increased exhaust heat, which will result in reduced supplemental firing fuel required.

A 3.3% design margin is used reflecting the possibility that the constructed facility will not be able to achieve the design heat rate.

The efficiency of the heat recovery steam generator and the two auxiliary boilers is expected to degrade over time due to boiler tube fouling. Boiler tube fouling will result in an approximate 1% reduction in thermal efficiency

7. The application does not appear to propose the installation of emergency generator and fire water pump engines. Please confirm whether or not the proposed project includes the installation of these engines. If the project is to include the installation of an emergency generator and fire pump engine, please provide supplemental design information, the BACT analysis and emission calculations.

The purpose of the Utility plant will be to provide electricity and steam to the neighboring PET Plant. The PET Plant will have an emergency generators and fire water pump engines but there are no proposed emergency engines for the Utility Plant.

8. The global warming potentials (GWP) have been revised by EPA. The final rule published on November 29, 2013 in the Federal Register will be effective for all permits issued on or after January 1, 2014. The methane value was increased from 21 to 25 (times more potent than CO2), the N2O value was decreased from 310 to 298, and the N2O value was decreased from 23,900 to 22,800. Due to the prospective changes in the emissions for methane in the NRG application, please provide an updated emission tables using the new GWPs so that EPA can cross-check its own calculations.

The revised Global Warming Potential factors were incorporated into the GHG emission calculations provided in Attachment A.

Should you have any questions regarding this response, please contact me by email at lmoon@zephyrenv.com or by telephone at 512-879-6619.

Sincerely,
ZEPHYR ENVIRONMENTAL CORPORATION

Larry A. Moon, P.E.
Principal

cc: Mr. Brad Toups, U.S. EPA Region 6
Mr. Sean O'Brien, TCEQ
Ms. Allana Whitney, Chemtex
Mr. Mauro Fenoglio, M&G
Mr. Flavio Assis, M&G
Ms. Martha Martinez, M&G
Mr. Thomas Sullivan, P.E., Zephyr Environmental

Attachments

ATTACHMENT A

UPDATED GHG EMISSION CALCULATIONS

TABLE 3-1
PLANTWIDE GHG EMISSION SUMMARY
UTILITY PLANT

Source Name	EPN	Calculation Table	CO_2 ton/yr	CH_4 ton/yr	N_2O ton/yr	GHG Mass Emissions ton/yr	CO_2e ton/yr
OPTION 1							
GE LM-6000 Natural Gas Turbine and Duct Burner	CTG	TABLE 3-2	363,652	6.86	0.69	363,659	364,027
Auxiliary Boiler A1	AUXBLRA1	TABLE 3-3A	247,281	4.66	0.47	247,286	247,537
Auxiliary Boiler B	AUXBLRB	TABLE 3-4	127,992	2.41	0.24	127,995	128,125
Natural Gas Fugitive Emissions	NG-FUG	TABLE 3-5	0.72	20.27		21	508
Gas Venting	MSS-FUG	TABLE 3-6	0.0038	0.11		0.11	3
Sitewide Emissions (Option 1)			738,926	34	1	738,961	740,199
OPTION 2							
Auxiliary Boiler A1	AUXBLRA1	TABLE 3-3A	247,281	4.66	0.47	247,286	247,537
Auxiliary Boiler A2	AUXBLRA2	TABLE 3-3B	247,281	4.66	0.47	247,286	247,537
Auxiliary Boiler B	AUXBLRB	TABLE 3-4	127,992	2.41	0.24	127,995	128,125
Natural Gas Fugitive Emissions	NG-FUG	TABLE 3-5	0.72	20.27	0.00	21	508
Gas Venting	MSS-FUG	TABLE 3-6	0.0038	0.11	0	0.11	3
Sitewide Emissions (Option 2)			622,555	32	1	622,588	623,708

TABLE 3-2
TURBINE AND DUCT BURNER GHG ANNUAL EMISSION CALCULATIONS
UTILITY PLANT

EPN	Average Heat Input (MMBtu/hr)[1]	Annual Heat Input[2] (MMBtu/yr)	Pollutant	Emission Factor (kg/MMBtu)[3]	GHG Mass Emissions (tpy)	Global Warming Potential[4]	CO_2e (tpy)
CTG	710	6,222,228	CO_2	53.02	363,651.6	1	363,651.6
			CH_4	1.0E-03	6.86	25	171.5
			N_2O	1.0E-04	0.69	298	204.4
				Totals	**363,659.1**		**364,027.4**

Notes

1. Heat input is combined heat input of turbine and duct burner from Firing Case 4CT, 100% load, with inlet chiller on.
2. The annual heat input includes hours of turbine startup/shutdown.
3. Factors based on natural gas values in Table C-1 and C-2 of 40 CFR Part 98, Mandatory Greenhouse Gas Reporting.
4. Global Warming Potential factors based on Table A-1 of 40 CFR 98 Mandatory Greenhouse Gas Reporting.

Sample Calculation, CO_2e:

GHG Mass Emissions (ton/yr) = 0.001 tons/kg x 6222228 MMBtu/yr x 0.001 kg/MMBtu = 6.9 tpy

CO2e (ton/yr) = 6.9 tpy x 25 = 171.5 tpy CO2e

TABLE 3-3A
AUXILIARY BOILER A1 GHG ANNUAL EMISSION CALCULATIONS
UTILITY PLANT

EPN	Average Heat Input (MMBtu/hr)	Maximum Heat Input (MMBtu/yr)	Pollutant	Emission Factor (kg/MMBtu)[1]	GHG Mass Emissions (tpy)	Global Warming Potential[2]	CO_2e (tpy)
AUXBLRA1	445	4,231,080	CO_2	53.02	247,281.01	1	247,281.0
			CH_4	1.0E-03	4.66	25	116.6
			N_2O	1.0E-04	0.47	298	139.0
				Totals	**247,286.1**		**247,536.6**

Notes

1. Factors based on natural gas values in Table C-1 and C-2 of 40 CFR Part 98, Mandatory Greenhouse Gas Reporting.
2. Global Warming Potential factors based on Table A-1 of 40 CFR 98 Mandatory Greenhouse Gas Reporting.

Sample Calculation, CO_2e:

GHG Mass Emissions (ton/yr) = 0.001 tons/kg x 4231080 MMBtu/yr x 0.001 kg/MMBtu = 4.7 tpy

CO2e (ton/yr) = 4.7 tpy x 25 = 116.6 tpy CO2e

TABLE 3-3B
AUXILIARY BOILER A2 GHG ANNUAL EMISSION CALCULATIONS
UTILITY PLANT

EPN	Average Heat Input (MMBtu/hr)	Maximum Heat Input (MMBtu/yr)	Pollutant	Emission Factor (kg/MMBtu)[1]	GHG Mass Emissions (tpy)	Global Warming Potential[2]	CO_2e (tpy)
AUXBLRA2	445	4,231,080	CO_2	53.02	247,281.01	1	247,281.0
			CH_4	1.0E-03	4.66	25	116.6
			N_2O	1.0E-04	0.47	298	139.0
				Totals	**247,286.1**		**247,536.6**

Notes

1. Factors based on natural gas values in Table C-1 and C-2 of 40 CFR Part 98, Mandatory Greenhouse Gas Reporting.
2. Global Warming Potential factors based on Table A-1 of 40 CFR 98 Mandatory Greenhouse Gas Reporting.

Sample Calculation, CO_2e:

GHG Mass Emissions (ton/yr) = 0.001 tons/kg x 4231080 MMBtu/yr x 0.001 kg/MMBtu = 4.7 tpy

CO2e (ton/yr) = 4.7 tpy x 25 = 116.6 tpy CO2e

TABLE 3-4
AUXILIARY BOILER B GHG ANNUAL EMISSION CALCULATIONS
UTILITY PLANT

EPN	Average Heat Input (MMBtu/hr)	Maximum Heat Input[1] (MMBtu/yr)	Pollutant	Emission Factor (kg/MMBtu)[2]	GHG Mass Emissions (tpy)	Global Warming Potential[3]	CO_2e (tpy)
AUXBLRB	250	2,190,000	CO_2	53.02	127,992.24	1	127,992.2
			CH_4	1.0E-03	2.414	25	60.4
			N_2O	1.0E-04	0.2414	298	71.9
				Totals	**127,994.9**		**128,124.5**

Notes

1. The annual heat input is based on 500 operating hours per year.
2. Factors based on natural gas values in Table C-1 and C-2 of 40 CFR Part 98, Mandatory Greenhouse Gas Reporting.
3. Global Warming Potential factors based on Table A-1 of 40 CFR 98 Mandatory Greenhouse Gas Reporting.

Sample Calculation, CO_2e:

GHG Mass Emissions (ton/yr) = 0.001 tons/kg x 2190000 MMBtu/yr x 0.001 kg/MMBtu = 2.41 tpy

CO2e (ton/yr) = 2.41 tpy x 25 = 60.4 tpy CO2e

TABLE 3-5
NATURAL GAS PIPING GHG EMISSION CALCULATIONS
UTILITY PLANT

EPN	Source Type	Fluid State	Count	Emission Factor[1] scf/hr/comp	CO_2[2] (tpy)	Methane[3] (tpy)	Total (tpy)
NG-FUG	Valves	Gas/Vapor	600	0.121	0.45	12.74	
	Flanges	Gas/Vapor	2400	0.017	0.26	7.16	
	Relief Valves	Gas/Vapor	5	0.193	0.006	0.17	
	Sampling Connections	Gas/Vapor	10	0.031	0.0019	0.054	
	Compressors	Gas/Vapor	3	0.30	0.005631	0.1579	
GHG Mass-Based Emissions					0.72	20.27	***21.0***
Global Warming Potential[4]					1	25	
CO_2e Emissions					0.72	506.9	***507.6***

Notes

1. Emission factors from Table W-1A of 40 CFR 98 Mandatory Greenhouse Gas Reporting included in the August 3, 2012 Technical Corrections
2. CO_2 emissions based on vol% of CO_2 in natural gas 1.25%
3. CH_4 emissions based on vol% of CH_4 in natural gas 96.13%
4. Global Warming Potential factors based on Table A-1 of 40 CFR 98 Mandatory Greenhouse Gas Reporting.

Example Calculation

600 valves	0.123 scf gas	0.0125 scf CO2	lbmole	44 lb CO_2	8760 hr	ton =	0.45 ton/yr
	hr * valve	scf gas	385 scf	lbmole	yr	2000 lb	

TABLE 3-6
GASEOUS FUEL VENTING DURING TURBINE SHUTDOWN/MAINTENANCE AND SMALL EQUIPMENT AND FUGITIVE COMPONENT REPAIR/REPLACEMENT
UTILITY PLANT

	Initial Conditions			Final Conditions			CO_2[3]	CH_4[4]	Total
Location	Volume[1] (ft^3)	Press. (psig)	Temp. (°F)	Press. (psig)	Temp. (°F)	Volume[2] (scf)	Annual (tpy)	Annual (tpy)	Annual (tpy)
Turbine Fuel Line Shutdown/Maintenance	1,146	**50**	**50**	0	68	5,277	0.0038	0.11	
Small Equipment/Fugitive Component Repair/Replacement	6.7	**50**	**50**	0	68	31	0.00002	0.00061	
GHG Mass-Based Emissions							0.0038	0.1060	**0.11**
Global Warming Potential[5]							1	25	
CO_2e Emissions							0.0038	2.7	**2.7**

Notes

1. Initial volume is calculated by multiplying the cross-sectional area by the length of pipe using the following formula: V= pi * [(diameter in inches/12)/2]^2 * length in feet = ft^3
2. Final volume calculated using ideal gas law $[(PV/ZT)_i = (PV/ZT)_f]$. $V_f = V_i (P_i/P_f) (T_f/T_i) (Z_i/Z_i)$, where Z is estimated using the following equation: $Z = 0.9994 - 0.0002P + 3E\text{-}08P^2$.
3. CO_2 emissions based on vol% of CO_2 in natural gas 1.25% from natural gas analysis
4. CH_4 emissions based on vol% of CH_4 in natural gas 96.13% from natural gas analysis
5. Global Warming Potential factors based on Table A-1 of 40 CFR 98 Mandatory Greenhouse Gas Reporting.

Example Calculation

5277 scf Nat Gas	0.013 scf CO2	lbmole	44 lb CO_2	ton =	=	0.0038	ton/yr CO_2
yr	scf Nat Gas	385 scf	lbmole	2000 lb			

ATTACHMENT B

UPDATED PSD NETTING TABLES

TABLE 1F
AIR QUALITY APPLICATION SUPPLEMENT

Permit No.:	108819/PSD-TX-1354	Application Submittal Date:	05/15/2014
Company	M&G RESINS USA, LLC		
RN:	RN106631427	Facility Location:	
City	Corpus Christi	County:	Nueces
Permit Unit I.D.:	PSD-TX-1354-GHG	Permit Name:	UTILITY PLANT
Permit Activity:	☑ New Major Source	☐ Modification	
Project or Process Description:	Construction of new combined cycle electric generating plant		

Complete for all pollutants with a project emission increase.	**POLLUTANTS**						
	Ozone		**CO**	**SO_2**	**PM**	**GHG**	**CO_2e**
	NOx	**VOC**					
Nonattainment? (yes or no)						No	No
Existing site PTE (tpy)	**This form for GHG only**					0	0
Proposed project increases (tpy from 2F)[3]						738,961	740,199
Is the existing site a major source? If not, is the project a major source by itself? (yes or no)	Yes						
If site is major, is project increase significant? (yes or no)						Yes	Yes
If netting required, estimated start of construction:		N/A					
5 years prior to start of construction:		N/A	Contemporaneous				
estimated start of operation:		N/A	Period				
Net contemporaneous change, including proposed project, from Table 3F (tpy)						738,961	740,199
Major NSR applicable? (yes or no)						Yes	Yes

1. Other PSD pollutants
2. Nonattainment major source is defined in Table 1 in 30 TAC 116.12(11) by pollutant and county. PSD thresholds are found in 40 CFR §51.166(b)(1).
3. Sum of proposed emissions minus baseline emissions, increases only. Nonattainment thresholds are found in Table 1 in 30 TAC 116.12(11) and PSD thresholds in 40 CFR §51.166(b)(23).
4. Since there are no contemporaneous decreases which would potentially affect PSD applicability and an impacts analysis is not required for GHG emissions, contemporaneous emission changes are not included on this table.

The presentations made above and on the accompanying tables are true and correct to the best of my knowledge.

Signature Title Date

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant[1]:	GHG	**Permit:**	108819/PSD-TX-1354
Baseline Period:	N/A **to** N/A		

	Affected or Modified Facilities[2] FIN	EPN	Permit No.	Actual Emissions[3] (A)	Baseline Emissions[4] (A)	Proposed Emissions[5] (B)	Projected Actual Emissions (B)	Difference (B - A)[6]	Correction[7]	Project Increase[8]
1	CTG/HRSG	CTG	108819/PSD-TX-1354	0.00	0.00	363,659		363,659		363,659
2	AUXBLRA1	AUXBLRA1	108819/PSD-TX-1354	0.00	0.00	247,286		247,286		247,286
3	AUXBLRB	AUXBLRB	108819/PSD-TX-1354	0.00	0.00	127,995		127,995		127,995
4	NG-FUG	NG-FUG	108819/PSD-TX-1354	0.00	0.00	21		21		21
5	MSS-FUG	MSS-FUG	108819/PSD-TX-1354	0.00	0.00	0.11		0.11		0.11
6										
7										
8										
9										
10										
11										
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							Page Subotal[9]			738,961

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant[1]:	CO_2e	**Permit:**	108819/PSD-TX-1354
Baseline Period:	N/A **to** N/A		

	Affected or Modified Facilities[2] FIN	EPN	Permit No.	Actual Emissions[3]	A Baseline Emissions[4]	B Proposed Emissions[5]	Projected Actual Emissions	Difference (B - A) [6]	Correction[7]	Project Increase[8]
1	CTG/HRSG	CTG	108819/PSD-TX-1354	0.00	0.00	364,027		364,027		364,027
2	AUXBLRA1	AUXBLRA1	108819/PSD-TX-1354	0.00	0.00	247,537		247,537		247,537
3	AUXBLRB	AUXBLRB	108819/PSD-TX-1354	0.00	0.00	128,125		128,125		128,125
4	NG-FUG	NG-FUG	108819/PSD-TX-1354	0.00	0.00	508		508		508
5	MSS-FUG	MSS-FUG	108819/PSD-TX-1354	0.00	0.00	3		3		3
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
							Page Subotal[9]			740,199

All emissions must be listed in tons per year (tpy). The same baseline period must apply for all facilities for a given NSR pollutant.

1. Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.
2. Emission Point Number as designated in NSR Permit or Emissions Inventory.
3. All records and calculations for these values must be available upon request.
4. Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.
5. If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.
6. Proposed Emissions (column B) Baseline Emissions (column A).
7. Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.
8. Obtained by subtracting the correction from the difference. Must be a positive number.
9. Sum all values for this page.

ATTACHMENT C

COMBUSTION TURBINE LOAD EFFICIENCY CURVE

Percent (%) efficiency curve for the Turbine/HRSG based on fuel consumption and electricity/steam produced